

## REMARKS/ARGUMENTS

Claims 1-20 are pending in the application. The Examiner has rejected claims 1-11 and 16-20. The Examiner has objected to claims 12-15. Applicant respectfully requests reconsideration of claims 1-20.

The Examiner has rejected claims 1-11 under 35 U.S.C. §102(e) as allegedly being anticipated by Walsh (US Patent No. 6,621,825). Applicant respectfully disagrees.

Regarding claim 1, Applicant submits the cited portions of the cited reference fail to anticipate the subject matter of claim 1. As one example, Applicant submits the cited portions of the cited reference fail to disclose "placing a reference to the data and to a multicast tree into a to-do list." While the Examiner cites "(see Fig. 3, col. 5, lines 16-25)," Applicant notes col. 5, lines 16-25, states "FIG. 3 illustrates the root queue 48 and the free list 46 at a given moment in time. As shown, the root queue 48, which is preferably a linked list structure, includes three cells, A, B, and C that are linked together via next cell pointers (nxtclptr) associated with each cell buffer of the root queue 48. As shown, cell A has a next cell pointer of B, cell B has a next cell pointer of C, and cell C has an undermined next cell pointer indicating that cell C is the last entry in the root queue. The free list 46 include a linked list of available cell buffers that may be utilized by the root queue for enqueueing new data cells." Applicant notes the Examiner does not state what element of the cited portion of the cited reference the Examiner would consider to disclose a "to-do list." Moreover, while Applicant sees mention of sees mention of a root queue 48 and a free list 46 in the cited portion of the cited reference, Applicant notes paragraphs [0020] and [0021], as one example, describe a relationship of a root queue and a free list to a to-do list in accordance with at least one embodiment. Accordingly, Applicant submits the cited portions of the cited reference fail to disclose "placing a reference to the data and to a multicast tree into a to-do list." As another example, Applicant submits the cited portions of the cited reference fail to disclose "for each of the leaves of the multicast tree, obtaining a data element pointer and a leaf to be processed pointer from the to-do list." While the Examiner cites "(see Fig. 2, col. 2, lines 38-50, col. 4, lines 57-62)," Applicant notes col. 2, lines 38-50, states "Next, a determination is made as to whether a predetermined number of leaf queues (i.e., queues associated with egress queue identifiers) associated with the multicast transmission are empty when the queuing of the cell commences. Each of a plurality of leaf queues is associated with a corresponding one of the egress connections of the multicast transmission. A leaf queue will be empty when the corresponding egress

connection has transported all of the data cells contained within the root queue associated with the multicast transmission. When the queuing of the cell commences, the identity of any empty leaf queues will be included in a segment queue." Applicant further notes col. 4, lines 57-62, states "In one example, the leaf queue 50 is associated with the top egress connection. As the top egress connection transports a cell from root queue 48, a head pointer within the leaf queue 50 is updated to point to the next cell in the root queue 48 to be transported. The same occurs for each of the other egress connections and their corresponding leaf queues." Applicant notes the Examiner does not state what element of the cited portion of the cited reference the Examiner would consider to disclose a "to-do list." Accordingly, Applicant submits the Examiner has not shown the cited portions of the cited reference to disclose "for each of the leaves of the multicast tree, obtaining a data element pointer and a leaf to be processed pointer from the to-do list." Thus, Applicant submits claim 1 is in condition for allowance.

Regarding claim 2, Applicant submits the cited portions of the cited reference fail to anticipate the subject matter of claim 2. As one example, Applicant submits the cited portions of the cited reference fail to disclose "updating the leaf to be processed pointer in the to-do list for each instance of scheduling the data to be output to each of the leaves." While the Examiner cites "(see Fig. 5, col. 7, lines 5-28)," Applicant notes the Examiner does not state what element of the cited portion of the cited reference the Examiner would consider to disclose a "to-do list." Moreover, while Applicant sees mention of a root queue 48, leaf queues 52 and 54, and a free list 46 in the cited portion of the cited reference, Applicant notes paragraphs [0020] and [0021], as one example, describe a relationship of a root queue, leaf queues, and a free list to a to-do list in accordance with at least one embodiment. Accordingly, Applicant submits the Examiner has not shown the cited portions of the cited reference to disclose "updating the leaf to be processed pointer in the to-do list for each instance of scheduling the data to be output to each of the leaves." Thus, Applicant submits claim 2 is in condition for allowance.

Regarding claims 3-7, Applicant submits the cited portions of the cited reference fail to anticipate the subject matter of claims 3-7. As one example, Applicant has presented arguments for the allowability of claims 1 and 2, from which claim 3 depends. Thus, Applicant submits claims 3-7 are also in condition for allowance.

Regarding claim 8, Applicant submits the cited portions of the cited reference fail to anticipate the subject matter of claim 8. As one example, Applicant submits the cited portions of the cited reference fail to disclose "determining that all of the enqueued data for a particular destination of the multicast destinations have been transmitted." While the Examiner cites "(see Fig. 4, col. 6, lines 6-42)," Applicant notes the Examiner does not state what element of the cited portion of the cited reference the Examiner would consider to disclose a "particular destination." Accordingly, Applicant submits the Examiner has not shown the cited portions of the cited reference to disclose "determining that all of the enqueued data for a particular destination of the multicast destinations have been transmitted." Thus, Applicant submits claim 8 is in condition for allowance.

Regarding claim 9, Applicant submits the cited portions of the cited reference fail to anticipate the subject matter of claim 9. As one example, Applicant submits the cited portions of the cited reference fail to disclose "storing queue context information and data context information pertaining to the data." While the Examiner cites "(see Fig. 3, col. 5, lines 14-48, and col. 6, lines 44-51)," Applicant notes the Examiner does not state what element of the cited portion of the cited reference the Examiner would consider to disclose "...queue context information..." and what element of the cited portion of the cited reference the Examiner would consider to disclose "...data context information..." Accordingly, Applicant submits the Examiner has not shown the cited portions of the cited reference to disclose "storing queue context information and data context information pertaining to the data."

As another example, Applicant submits the cited portions of the cited reference fail to disclose "determining which of the data to transmit as output data and a destination to which it shall be transmitted based on the queue context information and the data context information." While the Examiner cites "(see Fig. 4, col. 6, lines 6-23)," Applicant notes the Examiner does not state what element of the cited portion of the cited reference the Examiner would consider to disclose "...and a destination to which it shall be transmitted based on the queue context information and the data context information." Accordingly, Applicant submits the Examiner has not shown the cited portions of the cited reference to disclose "determining which of the data to transmit as output data and a destination to which it shall be transmitted based on the queue context information and the data context information." Thus, Applicant submits claim 9 is in condition for allowance.

Regarding claim 10, Applicant submits the cited portions of the cited reference fail to disclose "when the number of destinations to which the output data has been transmitted indicates that the

output data has been transmitted to the number of destinations intended to receive the output data, concluding the queuing of the output data." While the Examiner cites "(see Fig. 4, col. 6, lines 24-36)," Applicant notes the Examiner does not state what element of the cited portion of the cited reference the Examiner would consider to disclose "...concluding the queuing of the output data." Accordingly, Applicant submits the Examiner has not shown the cited portions of the cited reference to disclose ""when the number of destinations to which the output data has been transmitted indicates that the output data has been transmitted to the number of destinations intended to receive the output data, concluding the queuing of the output data." Thus, Applicant submits claim 10 is in condition for allowance.

Regarding claim 11, Applicant submits the cited portions of the cited reference fail to anticipate the subject matter of claim 11. As one example, Applicant has presented arguments for the allowability of claims 9 and 10, from which claim 11 depends. Thus, Applicant submits claim 11 is in condition for allowance.

The Examiner has rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Walsh (US Patent No. 6,621,825) in view of Brownhill (US Patent No. 5,875,189). Applicant respectfully disagrees.

Regarding claim 16, Applicant submits the cited portions of the cited references fail to render obvious the subject matter of claim 16. The Examiner acknowledges, "Walsh does not disclose a scheduler for scheduling a dequeuing event for the data." However, the Examiner states, "Brownhill discloses the scheduler for scheduling the dequeuing event for the data (see Fig. 6, element 36, col. 9, lines 1-8). Motivation: to eliminate the need to make multiple copies of an individual cell in order to transmit read on column 1, lines 50-52." While the portion of the Brownhill et al. reference cited by the Examiner mentions "scheduler," Applicant sees no mention of "for scheduling a dequeuing even for the data" in the cited portion of the cited reference. Moreover, Applicant notes the Examiner does not state what element of the cited references the Examiner would consider to disclose or suggest "...data context information pertaining to the data..." Therefore, Applicant submits the Examiner has not made a *prima facie* showing of obviousness with respect to claim 16. Thus, Applicant submits claim 16 is in condition for allowance.

Regarding claim 17, Applicant submits the cited portions of the cited references fail to render obvious the subject matter of claim 17. The Examiner states, "Walsh discloses the memory subsystem comprises:... "a to-do list for storing the data element pointer and the leaf to be processed pointer (see Fig. 2, col. 4, lines 1-10)." Applicant notes the Examiner does not state what element of the cited portion of the cited reference the Examiner would consider to disclose a "to-do list." Moreover, while Applicant sees mention of a root queues 48, 58, and 72 and a free lists 46, 57, and 70 in the cited portion of the cited reference, Applicant notes paragraphs [0020] and [0021], as one example, describe a relationship of a root queue and a free list to a to-do list in accordance with at least one embodiment. Accordingly, Applicant submits the Examiner has not shown the cited portions of the cited reference to disclose or suggest "a to-do list for storing the data element pointer and the leaf to be processed pointer." As another example, Applicant notes the Examiner does not state what element of the cited portion of the cited reference the Examiner would consider to disclose "a data context block for storing data context information for each of the data elements of the data." Applicant notes the Examiner merely cites "(see Fig. 2, col. 4, lines 1-10)" for all of the elements of claim 17, adding "element 44" only for "a data memory for storing the data." Accordingly, Applicant submits the Examiner has not shown the cited portion of the cited reference to teach or suggest each and every element of claim 17. Therefore, Applicant submits the Examiner has not made a *prima facie* showing of obviousness with respect to claim 17. Thus, Applicant submits claim 17 is in condition for allowance.

Regarding claim 18, Applicant submits the cited portions of the cited reference fail to render obvious the subject matter of claim 18. As one example, Applicant has presented arguments for the allowability of claims 16 and 17, from which claim 18 depends. Thus, Applicant submits claim 18 is in condition for allowance.

Regarding claim 19, Applicant submits the cited portions of the cited references fail to render obvious the subject matter of claim 19. The Examiner states, "Walsh discloses the queue context information comprises head pointer, a tail pointer, and a root pointer (see Figs. 2 and 4, col. 6, lines 43-51)." Applicant notes the Examiner does not state what element of the cited portion of the cited reference the Examiner would consider to disclose a "root pointer." Accordingly, Applicant submits the Examiner has not shown the cited portion of the cited reference to teach or suggest each and every element of claim 19. Therefore, Applicant submits the Examiner has not made a *prima facie* showing

of obviousness with respect to claim 19. Thus, Applicant submits claim 19 is in condition for allowance.

Regarding claim 20, Applicant submits the cited portions of the cited references fail to render obvious the subject matter of claim 20. The Examiner states, "Walsh discloses a leaf count for counting destination queues to which the data shall be transmitted (see Fig. 4, col. 6, lines 24-51)." Applicant notes the Examiner does not state what element of the cited portion of the cited reference the Examiner would consider to disclose a "leaf count." Furthermore, Applicant does not see mention of a "leaf count" in the cited portion of the cited reference. Accordingly, Applicant submits the Examiner has not shown the cited portion of the cited reference to teach or suggest each and every element of claim 20. Therefore, Applicant submits the Examiner has not made a *prima facie* showing of obviousness with respect to claim 20. Thus, Applicant submits claim 20 is in condition for allowance.

In conclusion, Applicant has overcome all of the Office's rejections, and early notice of allowance to this effect is earnestly solicited. If, for any reason, the Office is unable to allow the Application on the next Office Action, and believes a telephone interview would be helpful, the Examiner is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

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Date



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